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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,432	12/27/2001	Takeya Sakai	Q67878	1557

7590 06/30/2003
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
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EXAMINER

ROBERTSON, JEFFREY

ART UNIT PAPER NUMBER

1712

DATE MAILED: 06/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N . 10/026,432	Applicant(s) SAKAI ET AL.	
	Examiner Jeffrey B. Robertson	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 9-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-8 in Paper No. 5 is acknowledged.
2. Claims 9-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: on pages 13 and 14 of the specification, applicant describes Figure 2, but does not mention the reference letter "m". Although Figure 3 appears to be described in the first full paragraph of page 14, applicant does not mention the figure in this section. In addition, reference sign "30" is not mentioned in the specification. On page 46, applicant has not identified reference sign "10" in Figure 14. On page 16, applicant has not identified reference signs "90" and "95" in the description of Figure 16. On page 49, applicant has not identified reference sign "10" in Figure 18. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "15" has been used to designate both a substrate and random light. The specification on pages 20-21, indicates that the random light is reference number "16". A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: in the specification on pages 4-7, and 17-20, applicant has designated the molecular structures as "[C#]", however in the text applicant does not use the "C" in referring to the structures. Either the "C" should be dropped in the structures or it should be added to the text so that the two agree. Note that this also would affect the notation in the Tables.

Appropriate correction is required.

Claims Suggestions/Comments

6. The examiner notes that for claim 3, applicant has used the phrases "alkyloxy such as methoxy", and "alkyl group, e.g. methyl group or ethyl group". While this language is not necessarily favored, the examiner's position is that these phrases are not indefinite. One of ordinary skill in the art would understand what is claimed when the claim is read in light of the specification. In this case, the specific groups serve to illustrate suitable alkoxy and alkyl groups.

Claim Objections

7. Claims 3-5 are objected to because of the following informalities: for claim 3, applicant has designated the molecular structures as "[C#]", however in the text applicant does not use the "C" in referring to the structures. Either the "C" should be dropped in the structures or it should be added to the text so that the two agree. For claims 4 and 5, applicant has used the phrase "light to be irradiated", however the light is what is used to irradiate, not what is irradiated. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 2, and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohnishi et al. (U.S. Patent No. 5,523,127).

For claims 1 and 2, in column 3, line 6 through column 4, line 14, Ohnishi teaches that layer containing compounds of either formula (1) or formula (2) and a photopolymerizable resin. This layer has liquid crystal characteristics. For claims 1, 6, 7, and 8, in column 16, lines 9-24, Ohnishi teaches that the materials are irradiated with U.V. light and heated for 2 hours at 50 °C where the materials are cured. Also for claim 1, in column 6, lines 40-64, Ohnishi teaches that the polymer and the low molecular weight compound have matching solubility parameters, and that the solubility parameters of the low molecular weight compounds are approximately 9.5. In column

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17, Table 10, Ohnishi teaches that in Example 15, the polymer used has a solubility parameter of 8.96. The ratio of low molecular weight compound to polymer is $8.96/9.5=0.94$, which is within applicant's range.

Allowable Subject Matter

10. Claims 3-5 would be allowable if rewritten to overcome the claim objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. For claims 3-5, Ohnishi is the closest prior art. Ohnishi does not teach or suggest the particular low molecular weight compounds of claim 3, or the methods of light irradiation set forth in claims 4 and 5.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Morita et al. (U.S. Patent No. 4,915,867), Moriguchi et al. (U.S. Patent No. 5,572,291), Harada et al. (U.S. Patent No. 5,795,629), Kagawa et al. (U.S. Patent No. 6,423,385), Yamamoto (English Translation of JP 09-179102 from JPO website), and Sakai et al. (English Translation of JP 2001-117102 from JPO website) are cited for general interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey B. Robertson whose telephone number is (703) 306-5929. The examiner can normally be reached on Mon-Fri 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

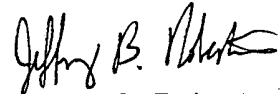
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872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeffrey B. Robertson
Primary Examiner
Art Unit 1712

JBR
June 26, 2003